FINAL ENVIRONMENTAL ASSESSMENT

IFR/Class D Runway Certifications
North Auxiliary Airfield
North, South Carolina

Contract No. FA4418-04-D-0002 Delivery Order No. 5003

August 2004

Prepared for

Charleston Air Force Base Charleston, South Carolina

by:

ZAPATAENGINEERING, P.A. 1100 KENILWORTH AVENUE CHARLOTTE, NORTH CAROLINA 28204 PHONE (704) 358-8240

maintaining the data needed, and c including suggestions for reducing	lection of information is estimated to ompleting and reviewing the collect this burden, to Washington Headqu uld be aware that notwithstanding an DMB control number.	ion of information. Send commen arters Services, Directorate for Int	ts regarding this burden estimate formation Operations and Reports	or any other aspect of the s, 1215 Jefferson Davis	his collection of information, Highway, Suite 1204, Arlington		
1. REPORT DATE AUG 2004		2. REPORT TYPE		3. DATES COVE 00-00-2004	ERED 4 to 00-00-2004		
4. TITLE AND SUBTITLE					5a. CONTRACT NUMBER		
Final Environmental Assessment IFR/Class D Runway Certifications North Auxiliary Airfield North, South Carolina					5b. GRANT NUMBER		
					5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S)			5d. PROJECT NUMBER				
					5e. TASK NUMBER		
					5f. WORK UNIT NUMBER		
					RMING ORGANIZATION NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)			10. SPONSOR/MONITOR'S ACRONYM(S)				
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)			
12. DISTRIBUTION/AVAIL Approved for publ	LABILITY STATEMENT ic release; distributi	ion unlimited					
13. SUPPLEMENTARY NO	OTES						
14. ABSTRACT							
15. SUBJECT TERMS							
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF	18. NUMBER	19a. NAME OF		
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified	Same as Report (SAR)	OF PAGES 31	RESPONSIBLE PERSON		

Report Documentation Page

Form Approved OMB No. 0704-0188

TABLE OF CONTENTS

FINDING OF NO SIGNIFICANT IMPACT ISSUE TRACKING MATRIX

1.0	PURPOSE AND NEED FOR PROPOSED ACTION	1
1.1	Purpose and Need	1
1.2	Decision Needed	1
1.3	Scoping Summary	
1.4	Applicable Regulatory Requirements	1
2.0	DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES	3
2.1	Detailed Discussion of the Proposed Action	
2.2	Alternatives Considered	3
2.3	Detailed Discussion of the No-Action Alternative	3
2.4	Detailed Discussion of the Preferred Option	3
3.0	AFFECTED ENVIRONMENT	4
3.1	Introduction	4
3.2	Location, History, and Current Mission	4
3.3	General Land Use	4
3.4.	Soils	4
3.5	Principal Natural Communities	4
3.6	Plant Life	5
3.7	Animal Life	5
3.8	Wetlands	5
3.9	Noise	5
3.10	Air Quality	
3.11	Cultural Resources	7
4.0	ENVIRONMENTAL CONSEQUENCES	8
4.1	No-Action Alternative	8
4.2	Proposed Action	8
4.3	Cumulative Effect Action	8
5.0	CONCLUSION	9
6.0	LIST OF REFERENCES	.1(
7.0	LIST OF PREPARERS	.11
8.0	LIST OF AGENCIES AND PERSONNEL CONTACTED	.12

APPENDICES

Appendix A	rigures
Appendix B	Public Notice Document
Appendix C	Records of Communication

US AIR FORCE - CHARLESTON AIR FORCE BASE

FINDING OF NO SIGNIFICANT IMPACT IFR/CLASS D RUNWAY CERTIFICATIONS NORTH AUXILIARY AIRFIELD

Pursuant to the Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of the National Environmental Policy Act (NEPA) and 32 Code of Federal Regulations (CFR) 989, Environmental Impact Analysis Process, Charleston Air Force Base (CAFB) has prepared an Environmental Assessment (EA) for this action. The purpose of the EA is to determine the extent of environmental impacts that may result from adding an Instrument Flight Rules (IFR)/Class D Runway approach at North Auxiliary Air Field (NAAF) and to evaluate whether the impacts, if any, will be significant.

DESCRIPTION OF PROPOSED ACTION

The US Air Force proposes to add an IFR/Class D training route at NAAF to enable pilots to conduct training exercises during inclement weather. Currently, pilots are using visual flight rules (VFR) for navigation, which limits the pilots to training exercises during clear weather conditions. If weather conditions exist that prevent the use of VFR at NAAF, training exercises are suspended or diverted to other training locations. The proposed action will increase safety, allow four aircraft during concurrent training exercises, versus three currently, and provide a significant cost savings. Based on 2002 data, the IFR approach into NAAF would allow 30 additional days of training per year and an annual cost savings of \$4.3 million per year for flights not diverted to other training locations. With the IFR approach, CAFB estimates that approximately 530 additional flights per year will be flown.

The proposed route (or approach) will begin at the Columbia Very High Frequency (VHF) Omni-Directional Range/Tactical Air Navigation (VORTAC) beacon, approximately 14.3 nautical miles north of NAAF, on a heading of 186 degrees. Aircraft will maintain a minimum altitude of 1,700 feet above ground level (AGL) and a maximum airspeed of 250 knots for approximately 9 nautical miles. At approximately 5.3 nautical miles from NAAF, the aircraft, maintaining the same airspeed, will descend to approximately 600 feet AGL for the final approach into NAAF. In the case of a missed approach, the aircraft will maintain a heading of 186 degrees and an altitude of 1,700 feet AGL. At 25 nautical miles from the Columbia VORTAC, aircraft will proceed into a circular holding pattern.

No ground disturbance activity is associated with the proposed action.

Alternatives to the proposed action include: No-Action, and reversing the approach from a north-to-south route to a south-to-north route. Under the No-Action alternative, flight safety would continue to be an issue during marginal weather conditions (i.e., reduced visibility), training would be limited to three aircraft or less, training flights would continue to be lost due to weather, and costs would be incurred as flights are diverted to other training locations. Reversing the approach to a south-to-north route would not be feasible because of airspace conflicts with Orangeburg regional airport.

CONCLUSION

Based on the findings presented in the EA, a Finding of No Significant Impact (FONSI) to the environment is appropriate if the proposed action is implemented; therefore, an Environmental Impact Statement (EIS) is not required for this project.

The project will be implemented upon approval and after public notice.

A copy of this EA is available at the North Branch of the Orangeburg County Public Library, located at 9316 US Highway 178 in North SC. All interested agencies, groups, and persons disagreeing with this decision are invited to submit written comments for consideration by the Charleston AFB Environmental Office. Questions or comments should be directed to 437 CES/CEV, 100 West Stewart Avenue, Charleston AFB, South Carolina, 29404, or by telephone at (843) 963-4976.

SIGNED:

SAMUEL D. COX, Colonel, USAF

SlD. Cox

Vice Commander, 437th Airlift Wing

Environmental Protection Committee Chairperson

DATE: 23 Ang 64

ENVIRONMENTAL ASSESSMENT FOR PROPOSED IFR/CLASS D RUNWAY CERTIFICATIONS AT NORTH AUXILIARY AIRFIELD

ZAPATAENGINEERING, P.A. Project Number: 1049

ISSUE TRACKING MATRIX

Issues	No-Action	Alternative 1 – South-to- North Route	Proposed Action
Cost	\$4.3 Million/Year	N/A	None
Noise	N/A	NSI	NSI
Air Quality	N/A	NSI	NSI
Cultural Resources	N/A	NSI	NSI
Purpose/Need Incompatible		*Incompatible	Compatible

N/A = Not Applicable

NSI = No Significant Impact

ZAPATAENGINEERING, P.A. Project Number: 1049

^{*} Reversing the approach to a south-to-north route would not be feasible because of airspace conflicts with Orangeburg regional airport.

1.0 PURPOSE AND NEED FOR PROPOSED ACTION

1.1 Purpose and Need

The proposed action is needed to increase training flights and enable pilots to conduct training exercises during inclement weather at NAAF by using instrument flight rules (IFR). Currently, all flights into NAAF are required to use visual flight rules (VFR) and approximately ten percent of those flights are suspended or diverted because of adverse weather conditions that prevent pilots from being able to use VFR. In addition, NAAF is limited to three aircraft during concurrent training exercises. The proposed action will allow four aircraft concurrently in the pattern.

The proposed IFR route (or approach) will begin at the Columbia Very High Frequency (VHF) Omni-Directional Range/Tactical Air Navigation (VORTAC) beacon, approximately 14.3 nautical miles north of NAAF, on a heading of 186 degrees. Aircraft will maintain a minimum altitude of 1,700 feet above ground level (AGL) and a maximum airspeed of 250 knots for approximately nine nautical miles. At approximately 5.3 nautical miles from NAAF, the aircraft, maintaining the same airspeed, will descend to approximately 600 feet AGL for the final approach into NAAF. In the case of a missed approach, the aircraft will maintain a heading of 186 degrees and an altitude of 1,700 feet AGL. At 25 nautical miles from the Columbia VORTAC, aircraft will proceed into a circular holding pattern. Please see Appendix A, Figures 1, 2, and 3 for the location of NAAF and proposed IFR approach into NAAF.

1.2 Decision Needed

Based on the analysis documented in this report, the Chairman of the Environmental Protection Committee will make the following decisions:

- Should pilots be restricted to VFRs for flights into NAAF?
- Should the IFR approach/Class D Certification be approved to permit training flights during inclement weather?

1.3 Scoping Summary

The scope of this Environmental Assessment (EA) is to evaluate the potential environmental impact at NAAF and surrounding areas by the proposed IFR/Class D Runway Certifications.

1.4 Applicable Regulatory Requirements

Noise

Under the Noise Control Act of 1972, the EPA is required to submit to the FAA proposed aircraft noise control regulations that it determines are necessary to protect the public health and welfare. Upon such submittal, the FAA is required to hold public hearings. The FAA placed a permit-level noise ceiling on newly manufactured jet airplanes that ranges from 93 to 108 decibels, depending upon the weight of the aircraft and the number of engines.

Cultural Resources

The National Historic Preservation Act (NHPA) of 1966 established the National Register of Historic Places (NRHP) and the Advisory Council on Historic Preservation. The NHPA requires federal agencies to consider potential impacts to cultural resources that are listed, nominated to, or eligible for listing on the NRHP, designated a National Historic Landmark, or valued for maintaining native and traditional cultures.

Air Quality

The Clean Air Act (CAA), as amended in 1997 and 1990, provides the basis for regulating air pollution. The CAA required the U.S. Environmental Protection Agency (USEPA) to establish ambient ceilings for certain "criteria" pollutants, usually those for which the USEPA has established National Ambient Air Quality Standards (NAAQS). The CAA requires each state to promulgate a State Implementation Plan (SIP) that provides for "implementation, maintenance, and enforcement of the NAAQS in each Air Quality Control Region (AQCR) in the state."

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 Detailed Discussion of the Proposed Action

The US Air Force proposes to add an IFR/Class D training route at NAAF to enable pilots to conduct training exercises during inclement weather. Currently, pilots are using visual flight rules (VFR), which limits the pilots to training exercises during clear weather conditions. If weather conditions exist that prevent the use of VFR at NAAF, training exercises are suspended or diverted to other training locations. The Proposed Action will increase safety during marginal weather conditions, allow four aircraft (versus three currently) during concurrent training exercises and provide a significant cost savings. Based on 2002 data, the IFR approach into NAAF would allow 30 additional days of training per year. With the IFR approach, CAFB estimates that approximately 530 additional flights per year will be flown.

The proposed IFR route will begin at the Columbia (South Carolina) VORTAC, approximately 14.3 nautical miles north of NAAF, on a heading of 186 degrees. Aircraft will maintain a minimum altitude of 1,700 feet above ground level (AGL) and a maximum airspeed of 250 knots for approximately nine nautical miles. At approximately 5.3 nautical miles from NAAF, the aircraft, maintaining the same airspeed, will descend to approximately 600 feet AGL for the final approach into NAAF or continue on to the missed-approach course. During the final approach, approximately 6,000 feet from the end of the runway, the aircraft traveling at approximately 135 knots will descend to 300 feet AGL and proceed to land. In the case of a missed approach, the aircraft will maintain a heading of 186 degrees and an altitude of 1,700 feet AGL. At 25 nautical miles from the Columbia VORTAC, aircraft will proceed into a circular holding pattern.

No ground disturbance activity is associated with the Proposed Action.

2.2 Alternatives Considered

The aircraft must be aligned with NAAF and the Columbia VORTAC to use IFR. Reversing the proposed approach to a south-to-north route was considered as an alternative to the Proposed Action; however, is not feasible because of airspace conflicts with Orangeburg regional airport.

2.3 Detailed Discussion of the No-Action Alternative

The No-Action alternative would continue to compromise flight safety during marginal weather because of reduced visibility, training would be limited to three aircraft in the pattern and training flights would continue to be lost due to weather. There is a cost impact of not allowing IFR approaches. Based on 2002 data, the cost of diverting flights to other locations is \$4.3 million per year (CAFB, 2004, personal communication).

2.4 Detailed Discussion of the Preferred Option

The Proposed Action is the preferred option. The alternative to the proposed action and the No-Action alternative do not meet the project objectives. The Proposed Action meets the project objectives with minimal impact to the environment.

3.0 AFFECTED ENVIRONMENT

3.1 Introduction

Representatives of ZAPATAENGINEERING visited CAFB on July 12, 2004. The purpose of this visit was to meet with Base personnel and to collect data for the proposed IFR/Class D Runway Certification project. Meetings were conducted with environmental, community planning and airspace management personnel. Because the proposed action does not involve ground disturbing activities, a reconnaissance at NAAF was not conducted.

3.2 Location, History, and Current Mission

NAAF consists of approximately 2,400 acres and is located approximately 65 miles northwest of CAFB, in the town of North, SC. NAAF was acquired by the War Department between 1942 and 1945. Approximately 100 acres of pine forest were cleared adjacent and northwest of the main runway in 2002. Currently, NAAF has a 12,000-ft main runway and a 3,000-ft assault runaway. The runways are used primarily by C-17 aircraft. Supporting infrastructure includes a fire station and control tower, an aerial delivery facility, a fueling station, a water system, and paved and unpaved roadways.

3.3 General Land Use

Approximately 15 percent of the land at NAAF is characterized as "improved grounds." This category includes acreage on which intensive maintenance must be planned and performed. The dominant land use at NAAF within the improved grounds category consists of runways, cantonment area, and a sewage treatment area. Approximately 25 percent of the land at NAAF is classified as semi-improved grounds. The remaining 60 percent of NAAF consist of "unimproved grounds." These lands are comprised of upland and wetland forests.

3.4 Soils

Sixteen soil types have been mapped at NAAF. In general, these soils are classified as sands, sandy loams, and loamy sands. Significant land use constraints are present for the Mouzon fine sandy loam, Johnston sandy loam, Bibb sandy loam, and Lynchburg fine sandy loam because of wetness and periodic flooding.

3.5 Principal Natural Communities

As described in the CAFB/NAAF Final Natural Resources Report dated October 2003, the predominant natural community at NAAF is the 426-acre bottomland hardwood swamp located in the southern portion of the Airfield. This wetland is part of the floodplain of the North Fork of the Edisto River and provides excellent habitat for a number of wildlife species.

The upland forests, although largely planted and managed for timber production, constitute an important ecosystem at NAAF. Although not diverse in terms of vegetation, these forests also provide habitat for wildlife species.

3.6 Plant Life

- No federally listed threatened or endangered plant species was identified during the survey.
- Carolina birds-in-a-nest, a Federal Species of Concern plant, was identified at NAAF within North Airfield Threatened and Endangered Habitat 1 (NATE1) during a 1997 survey. It was not identified during the 2003 survey, primarily due to high water levels that inundated the habitat. The species will likely reappear during years with normal rainfall. NATE1 is located in the southern part of NAAF and is bounded by the North Fork Edisto River and US Highway 321.

3.7 Animal Life

- No federally listed threatened, endangered, or species of concern animal was located during the survey.
- No federal animal species of concern was identified.
- No state listed threatened, endangered, or special concern animal species was identified during the survey.

3.8 Wetlands

As detailed in the *Final Natural Resources Report* dated October 2003, four wetlands totaling 431.14 acres were identified and delineated at NAAF. Historic impacts to the wetlands at NAAF have largely been from logging, although logging within the wetlands has not occurred recently (probably not within 40 years, based on the maturity of the trees in the forested wetlands).

The wetlands at NAAF are generally of higher quality than those at CAFB. Primary functions of the wetlands that benefit the Air Field include floodwater attenuation, carbon import and export, natural community structure maintenance, retention of particulates, and wildlife habitat.

3.9 Noise

The characteristics of sound include parameters such as amplitude (loudness), frequency (pitch), and duration. Sound varies over an extremely large range of amplitudes. The decibel (dB), a logarithmic unit that accounts for the large variations in amplitude, is the accepted standard unit for describing levels of sound.

Noise is defined as sound that is undesirable because it interferes with speech and hearing, is intense enough to damage hearing, or is otherwise annoying. The Day-Night Average Sound Level (DNL) metric is a measure of the total community noise environment in terms of the human hearing system. DNL is the average sound level over a 24-hour period, with a 10 dBA adjustment added to nighttime levels (between 10:00 p.m. and 7:00 a.m.). This adjustment is an effort to account for increased human sensitivity to nighttime noise events. DNL is an accepted unit for quantifying annoyance to humans by general environmental noise, including aircraft noise (Environmental Assessment, Anti-Terrorism/Force Protection, CAFB, July 2004).

The average busy-day noise contours from the 2004 Air Installation Compatible Use Zone (AICUZ) Study, Resource Book, and Citizen's Brochure for NAAF (in progress; 35% delivery)

are depicted on Figure 4 (Appendix A). The numbers 65dBA through 80dBA indicate the average sound levels in decibels using the DNL metric for describing the noise environment.

The proposed action will increase the number of aircraft from three to four during concurrent training exercises, thereby shortening the separation distance between flights that may be flying the same route. An outdoor DNL of 75 dBA is considered the threshold above which the risk of hearing loss is evaluated. Hearing loss evaluations indicate that an average of 1 dBA hearing loss could be expected for people exposed to DNL equal or greater than 75 dBA; however, these hearing loss projections are considered conservative, as the calculations are based on an average daily outdoor exposure of 16 hours (7:00 a.m. to 10:00 p.m.) over a 40-year period. Based on these exposure evaluations, it is unlikely that individuals in the proximity of NAAF would suffer from hearing loss from DNL equal to or grater than 75 dBA (*Environmental Assessment, Anti-Terrorism/Force Protection*, CAFB, July 2004). It follows, therefore, that there is no reason to believe that the increased traffic associated with the proposed action would cause hearing loss to the public.

Potential for noise-related damage to historical structures is discussed in Section 3.11, herein, Cultural Resources.

3.10 Air Quality

Air quality in any given region is measured by the concentration of various pollutants in the atmosphere, typically expressed in units of parts per million or micrograms per cubic meter. Air quality is determined by the types and quantities of atmospheric pollutants and by surface topography, size of the air basin and prevailing meteorological conditions.

The Clean Air Act (CAA), as amended in 1997 and 1990, provides the basis for regulating air pollution. The CAA required the U.S. Environmental Protection Agency (USEPA) to establish ambient ceilings for certain "criteria" pollutants, usually those for which the USEPA has established National Ambient Air Quality Standards (NAAQS). Primary standards are levels of air quality necessary, within an adequate margin of safety, to protect public health. Secondary standards are those necessary to protect public welfare from adverse affects of a pollutant (e.g., decreased visibility, damage to vegetation, wildlife, structures).

The CAA requires each state to promulgate a State Implementation Plan (SIP) that provides for "implementation, maintenance, and enforcement of the NAAQS in each Air Quality Control Region (AQCR) in the state. The ambient air quality standards for South Carolina are contained in South Carolina Department of Health and Environmental Control (SCDHEC) Regulation 61-62, Air Pollution Control Regulations and Standards, Ambient Air Quality Standards.

All of South Carolina is in attainment of all state and federal ambient air quality standards with the exception of a small part of York County bordering Mecklenburg County, North Carolina. SCDHEC is not aware of any air quality concerns specific to Orangeburg County, South Carolina (Carl Richardson, SCDHEC, personal communication, July 22, 2004).

3.11 Cultural Resources

Cultural resources are any prehistoric or historic district, site, or building, structure, or object considered important to a culture, subculture, or community for scientific, traditional, religious or other purposes. These resources include archaeological sites, historic structures, and traditional cultural places.

Section 106 of the National Historic Preservation Act requires Federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The procedures in this part define how Federal agencies meet these statutory responsibilities. The Section 106 process seeks to accommodate historic preservation concerns with the needs of Federal undertakings through consultation among the agency officials and other parties with an interest in the effects of the undertaking on historic properties, commencing at the early stages of project planning. The goal of consultation is to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties.

The potential for effects to historical sites from aircraft overflight while operating on the proposed IFR route will be limited to noise. The lowest altitude at which C-17 aircraft would operate on the proposed IFR route is 600 feet above ground level (AGL). At half of the proposed altitude (300 feet AGL), the maximum sound level produced by a C-17 aircraft is approximately 100 decibels. The aircraft will descend below 300 feet AGL in airspace that is already being used by approaching or departing flights. The sound level at or above which damage could be expected to historical structures is 127 decibels (Parsons Engineering Science, 2004, personal communication). Therefore, no effects to historic features would be anticipated because the maximum sound produced by the C-17 would not exceed the minimum level at which damage could occur.

4.0 ENVIRONMENTAL CONSEQUENCES

This section discusses the probable consequences of each alternative on the affected environment.

4.1 No-Action Alternative

No environmental consequences are associated with the no-action alternative. This alternative allows for the continued use of NAAF as a VFR only runway.

4.2 Proposed Action

Minimal environmental consequences are associated with the Proposed Action. The additional flights will generate more frequent noise within the exiting flight paths that are currently used at NAAF. In close proximity to NAAF, noise will most likely be apparent along the proposed route outside the existing flight paths; however, as depicted on Figure 4, noise levels outside the existing flight paths will generally be less than 65 dBA. Sixty-five dBA is equivalent to normal speech at a distance of 3 feet.

4.3 Cumulative Effect Action

The Council on Environmental Quality defines cumulative effects in 40 CFR 1508 as the impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

Negative cumulative effects for the proposed IFR/Class D Runway route may be an increase in noise; however, the increase should be negligible.

5.0 CONCLUSION

The Proposed Action as described in this document is the only action that meets all requirements of the project. The IFR/Class D Runway Certification will enable pilots to conduct training exercises during inclement weather, increase safety during marginal weather, and provide a significant cost savings over current practice.

While meeting all project requirements, the proposed action poses minimal impact to the environment.

The No-Action alternative requires that NAAF remain a VFR-only airfield. Therefore, flight safety during marginal weather would continue to be an issue, training would be restricted, and costs would be incurred by flights being diverted to other training locations. The No-Action alternative does not meet project requirements and the base's training needs.

6.0 LIST OF REFERENCES

Charleston Air Force Base, Final Natural Resources Report, October 2003.

Charleston Air Force Base, Office of Public Affairs, Fact Sheet: North Auxiliary Airfield, July 2003.

Charleston Air Force Base, Air Installation Compatible Use Zone Study, Citizen's Brochure, 2004.

Department of the Air Force, 2004, Statement of Work for an Environmental Assessment (EA) Instrument Flight Rules (IFR) / Class D Runway Certification at North Auxiliary Airfield (NAAF), Charleston Air Force Base, 18 June 2004.

Department of the Air Force, Environmental Assessment, Anti-Terrorism/Force Protection, Charleston Air Force Base, South Carolina, July, 2003.

Parsons Engineering Science, Inc., 2004, Air Installation Compatible Use Zone Study, Resource Book, and Citizens Brochure for North Auxiliary Field, Charleston Air Force Base, South Carolina, Contract Number F41624-03-D-8613, DO-006, under development at 35% completion.

Rust Environment and Infrastructure, 1997, Final Report for Natural Resources Surveys, Charleston Air Force Base, South Carolina, Contract No. F41624-94-D-8048-0013.

Citing the following references, Parsons Engineering Science, Inc. (2004) provided ZAPATAENGINEERING with sound impact data on historic resources:

Speakman 1992. J. Speakman, Air Force Systems Command, Armstrong Laboratory, Wright-Patterson AFB, Ohio, 1992.

United States Air Force, Air Mobility Command, Environmental Assessment, Proposed C-17 Beddown, McChord Air Force Base, Washington, January 1997.

7.0 LIST OF PREPARERS

This report was prepared for Charleston AFB, Environmental Management Office by ZAPATAENGINEERING. Listed below are members of the professional staff who contributed to the development of this document.

Mr. Gregory D. Hippert Environmental Scientist

Mr. Aaron Dorsey
GIS Technician

Mr. Neil J. Gilbert, P.E., P.G. Project Manager

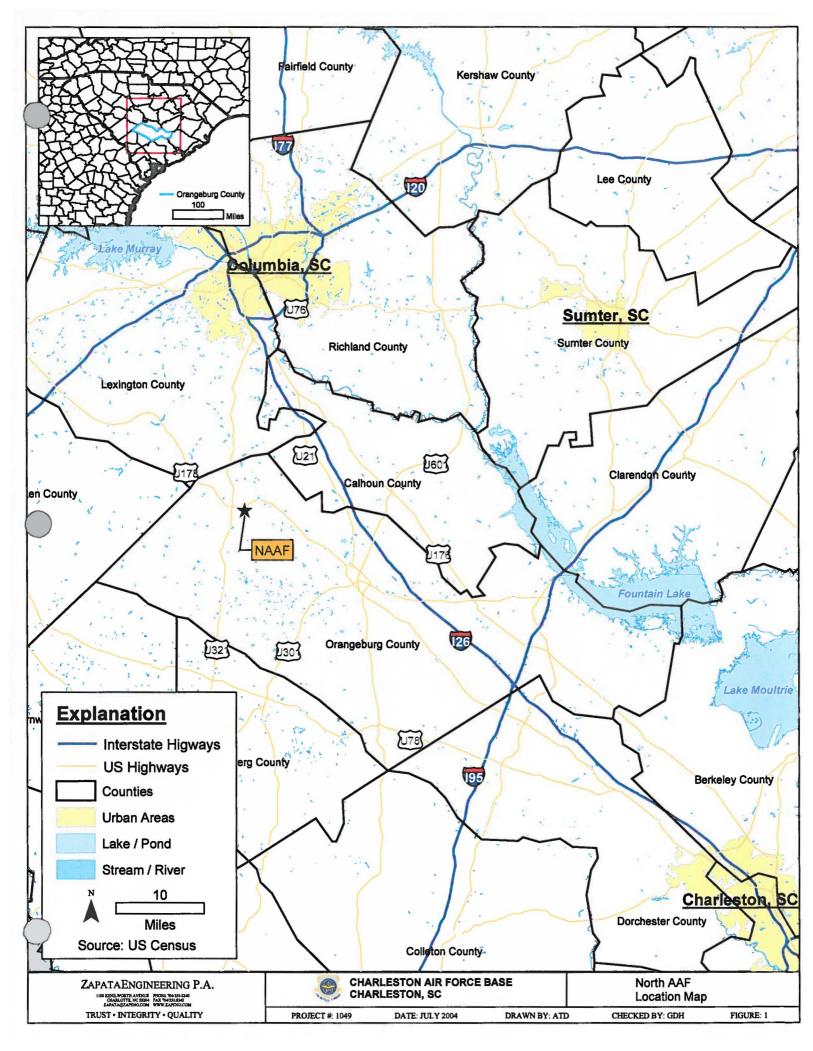
8.0 LIST OF AGENCIES AND PERSONNEL CONTACTED

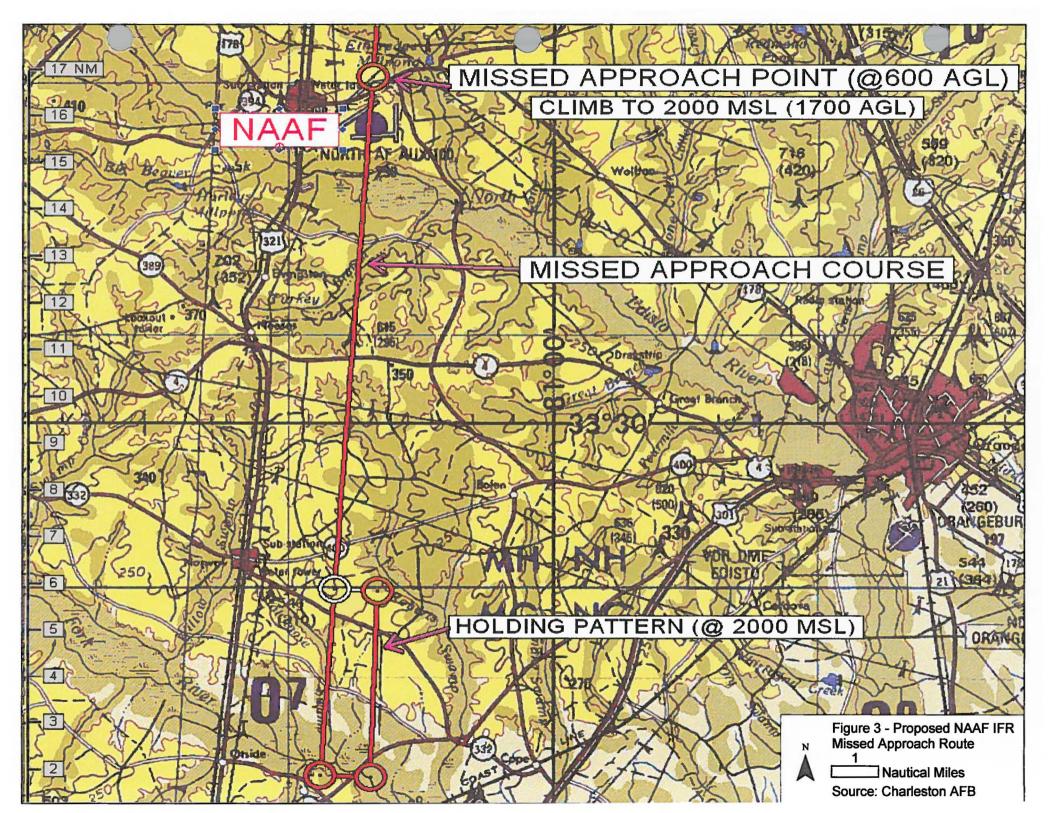
Presented below is a listing of each agency or personnel contacted.

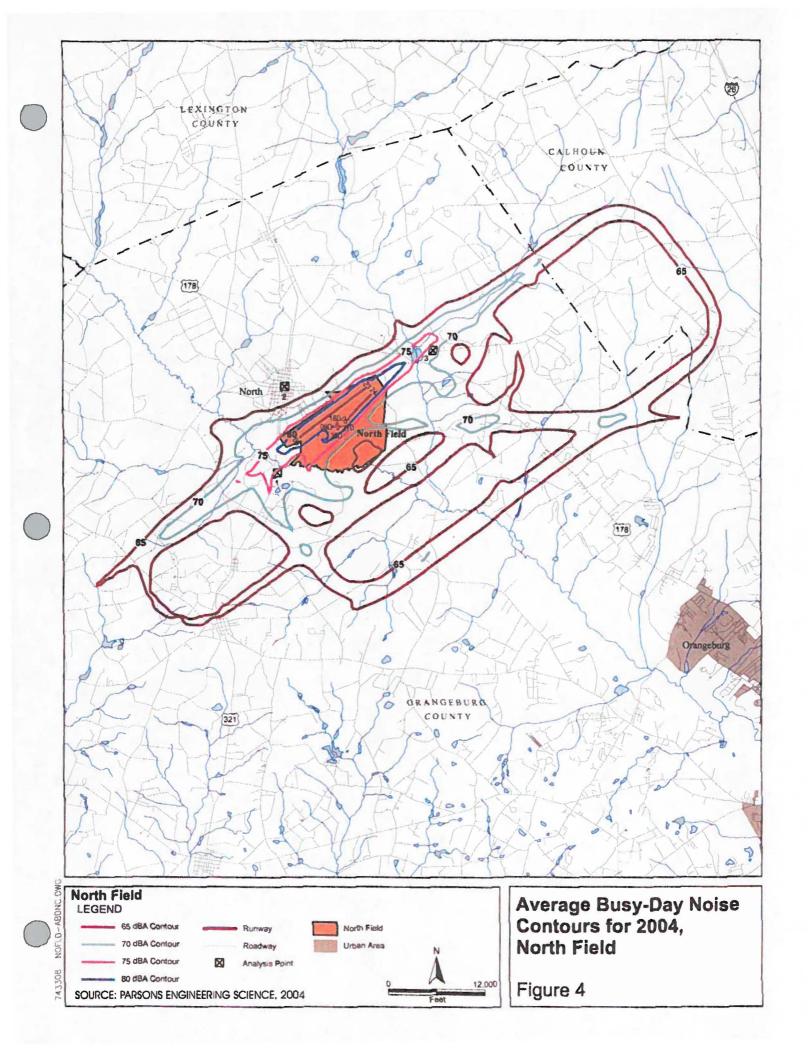
Agency	<u>Contact</u>
437 CES/CEVP Charleston AFB Charleston, South Carolina 29404	Mr. Bo Camp Mr. Al Urrutia Ms. Julie Legg
S.C. department of Archives and History State Historic Preservation Office (SHPO) 8301 Parklane Road Columbia, South Carolina 29223	Mr. Chad Long Ms. Marta Matthews
437 OSS/OSTA Charleston AFB Charleston, South Carolina 29404	Cpt. Hunter McCadams Maj. Kevin Edenborough
437 CES/CEC Charleston AFB Charleston, South Carolina 29404	Mr. Bill Werrell
Public Affairs Office Charleston AFB Charleston, South Carolina 29404	Major Linda Pepin
Parsons Engineering Science, Inc. 8000 Center Park Drive, Suite 200 Austin, TX 78754	Mr. John Wallin

APPENDIX A

FIGURES







APPENDIX B

PUBLIC NOTICE DOCUMENT

PUBLIC NOTICE DOCUMENT

NOTICE TO PUBLIC OF NO SIGNIFICANT IMPACT ON THE ENVIRONMENT August 2004

TO ALL INTERESTED AGENCIES, GROUPS, AND PERSONS

Charleston Air Force Base proposes to add an IFR/Class D training route at North Auxiliary Air Field, South Carolina (NAAF) to enable pilots to conduct training exercises during inclement weather. The proposed route will begin at the Columbia Very High Frequency (VHF) Omni-Directional Range/Tactical Air Navigation (VORTAC) beacon, approximately 14.3 nautical miles north of NAAF on a heading of 186 degrees. Aircraft will maintain a minimum altitude of 1,700 feet above ground level (AGL) and a maximum airspeed of 250 knots for approximately nine nautical miles. At approximately 5.3 nautical miles from NAAF, the aircraft, maintaining the same airspeed, will descend to approximately 600 feet AGL for the final approach into NAAF. In the case of a missed approach, the aircraft will maintain a heading of 186 degrees and an altitude of 1,700 feet AGL. At 25 nautical miles from the Columbia VORTAC, aircraft will proceed into a circular holding pattern.

No ground disturbance activity is associated with the proposed training route.

FINDING OF NO SIGNIFICANT IMPACT

It has been determined that the IFR/Class D Runway Certification project will not significantly affect the quality of the environment. The Charleston Air Force Base Environmental Office has prepared an Environmental Assessment under the National Environmental Policy Act of 1969. The Environmental Assessment indicates that the project will not have any impact on wetlands, threatened and endangered species, air quality or cultural resources. The establishment of the IFR/Class D Runway Certification project will not include any ground disturbance. Necessary agencies were consulted about this project.

The Environmental Assessment is on file at the North Branch of the Orangeburg County Library, located at 9316 U.S. 178 in North, South Carolina. The document is available for public examination and copying upon request between the hours of 10 AM and 5 PM, Monday through Friday.

No further environmental review of this project is proposed to be conducted prior to implementation of the proposed action.

PUBLIC COMMENT ON FONSI

Within 30 days of this publication, all interested agencies, groups, and persons disagreeing with this decision are invited to submit written comments for consideration by the Charleston Air Force Base Environmental Office to 437 CES/CEVP, 100 West Stewart Avenue, Charleston Air Force Base, South Carolina 29404. All such comments received will be considered. Charleston Air Force Base will not take any action on the proposed project prior to the public comment period expiration.

ZAPATAENGINEERING, P.A.

Project Number: 1049

APPENDIX C

RECORDS OF COMMUNICATION

PROJECT: IFR/Class D Runway Certification Environmental Assessment Drainage at North

Auxiliary Air Field

DATE OF COMMUNICATION: July 6, 2004

COMMUNICATION WITH: Mr. Chad Long, Staff Archaeologist

COMPANY: South Carolina State Historic Preservation Office (SHPO)

TELEPHONE NUMBER: (803) 896-6181

FAX NUMBER:

CONDUCTED BY: Greg Hippert

RE: Cultural Resources

SUMMARY:

Mr. Long requested that ZAPATAENGINEERING provide a full description of the project and describe what the effects might be at various altitudes. The SHPO is concerned about potential impacts to the Swansea Community House and other potential resources. He added that Ms. Marta Matthews would be our contact person for this project. ZAPATAENGINEERING will provide a project description to Ms. Matthews once requested information is received.

FOLLOW-UP ACTION:

Mr. Long provided the coordinates of the Swansea Community House, which were then provided to CAFB Airspace personnel. CAFB then plotted the location of the Swansea Community House and determined that the resource is located south of Swansea and out of the proposed flight path. An email has been submitted to Mr. Long that provides a project description and noise data concerning potential noise impacts on historical structures. Please see the Record of Communication for a telephone conversation with Mr. Chad Long dated July 7, 2004 for additional follow-up details.

ZAPATAENGINEERING Project Number 1049

PROJECT: IFR/Class D Runway Certification Environmental Assessment Drainage at North Auxiliary Air Field

DATE OF COMMUNICATION: July 7, 2004

COMMUNICATION WITH: Mr. John Wallin

COMPANY: Parsons Engineering

TELEPHONE NUMBER: (512) 719-6000

FAX NUMBER:

CONDUCTED BY: Greg Hippert

RE: Noise Data

SUMMARY: ZAPATAENGINNERING contacted Mr. Wallin to request noise data and its potential impact on cultural resources. Mr. Wallin indicated that he would provide ZAPATAENGINEERING with information concerning aircraft noise on cultural resources.

FOLLOW-UP ACTION:

After receiving approval from CAFB, Mr. Wallin sent requested information to ZAPATAENGINEERING on 7-15-04.



PROJECT: IFR/Class D Runway Certification Environmental Assessment Drainage at North

Auxiliary Air Field

DATE OF COMMUNICATION: July 7, 2004

COMMUNICATION WITH: Mr. Chad Long, Staff Archaeologist

COMPANY: South Carolina State Historic Preservation Office

TELEPHONE NUMBER: (803) 896-6181

FAX NUMBER:

CONDUCTED BY: Greg Hippert

RE: Status of project related email

SUMMARY:

Since Marta Matthews was out of the office, an email describing the project and the impact of noise on historic structures was forwarded to Mr. Long. Mr. Long indicated during our conversation that he had received my email and printed a copy for Ms. Matthews to review. Ms Matthews will let us know if she requires additional information.

FOLLOW-UP ACTION:

Marta Matthews contacted ZAPATAENGINEERING by email on July 28, 2004 and indicated that her office agreed that no historic properties should be affected by noise generated by aircraft using the proposed IFR route.

ZAPATA ENGINEERING Project Number 1049

PROJECT: IFR/Class D Runway Certification Environmental Assessment Drainage at North

Auxiliary Air Field

DATE OF COMMUNICATION: July 7, 2004

COMMUNICATION WITH: Mr. Bill Werrell, CAFB Community Planner

COMPANY: CAFB

TELEPHONE NUMBER: (843) 963-4991

FAX NUMBER:

CONDUCTED BY: Greg Hippert

RE: Noise Study at NAAF

SUMMARY:

Mr. Werrell has a noise study that provides noise data around NAAF.

FOLLOW-UP ACTION:

ZAPATAENGINEERING received copies of the noise study during data collection efforts on July 8, 2004.

ZAPATA ENGINEERING Project Number 1049

PROJECT: IFR/Class D Runway Certification Environmental Assessment Drainage at North

Auxiliary Air Field

DATE OF COMMUNICATION: July 13, 2004

COMMUNICATION WITH: Major Linda Pepin

COMPANY: CAFB Public Affairs Office (PAO)

TELEPHONE NUMBER: (843) 963-3888

FAX NUMBER:

CONDUCTED BY: Greg Hippert

RE: Noise complaints at NAAF

SUMMARY:

Major Pepin, who has been the PAO office for the past two years, indicated that she has not received any complaints concerning noise at NAAF. She added that the community is very supportive of the CAFB mission at NAAF.

Concerning flight times, Major Pepin indicated that training flights at NAAF can be conducted at any time within a 24-hour period.

ZAPATA ENGINEERING Project Number 1049

PROJECT: IFR/Class D Runway Certification Environmental Assessment Drainage at North Auxiliary Air Field

DATE OF COMMUNICATION: July 22, 2004

COMMUNICATION WITH: Mr. Carl Richardson

COMPANY: SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL, AIR

QUALITY SECTION

TELEPHONE NUMBER: (803) 898-4111

FAX NUMBER:

CONDUCTED BY: Neil Gilbert

RE: SOUTH CAROLINA AIR QUALITY

SUMMARY: According to Mr. Richardson, all of South Carolina is in attainment of all state and federal ambient air quality standards with the exception of a small part of York County bordering Mecklenburg County, North Carolina. He is not aware of any air quality concerns specific to Orangeburg County, South Carolina.

ZAPATAENGINEERING